

Claims

Claims 1-14 (cancelled)

15. (currently amended) A plant transformed with a nucleic acid sequence encoding an aspartate ~~carboxylase~~decarboxylase, wherein the amino acid sequence of said aspartate decarboxylase has at least 80% sequence identity with SEQ ID NO: 2.

16. (currently amended) The transformed plant of claim 15, wherein expression of said nucleic acid sequence results in ~~having~~ increased biomass.

17. (currently amended) The transformed plant of claim 15 wherein expression of said nucleic acid sequence results in ~~having~~ increased stress tolerance.

18. (currently amended) The transformed plant of claim 17, wherein expression of said nucleic acid sequence results in the plants ~~plant~~ have ~~having~~ increased drought tolerance.

19. (currently amended) The transformed plant of claim 17, wherein expression of said nucleic acid sequence results in the plants ~~plant~~ have ~~having~~ increased salt tolerance.

20. (currently amended) The transformed plant of claim 17, wherein expression of said nucleic acid sequence results in the plants ~~plant~~ have ~~having~~ increased freezing tolerance.

21. (currently amended) The transformed plant of claim 15, wherein said aspartate ~~carboxylase~~ decarboxylase has the amino acid sequence of SEQ ID NO: 2.

22. (currently amended) The transformed plant of claim 15, wherein said aspartate ~~carboxylase~~ decarboxylase is encoded by a ~~nucleic acid~~ having the sequence of SEQ ID NO: 1.

23. (currently amended) The transformed plant of claim 15, wherein said aspartate ~~carboxylase~~ decarboxylase is encoded by a nucleic acid sequence ~~which has a sequence which is~~ having at least 70% ~~identical~~ identity to SEQ ID NO: 1.

24. (currently amended) The transformed plant of claim 15, wherein said aspartate ~~carboxylase-decarboxylase~~ is encoded by a nucleic acid sequence ~~which has a sequence which is~~ having at least 90% ~~identical~~ identity to SEQ ID NO: 1.

25. (currently amended) The transformed plant of claim 15, wherein said aspartate ~~carboxylase-decarboxylase~~ is encoded by a nucleic acid sequence which hybridizes under stringent conditions to the full-length complement of SEQ ID NO: 1, wherein said stringent conditions comprise washing in 5-~~times-x~~ SSC at a temperature of ~~from~~ from 50 to 68 degrees C.

26. (cancelled) .

27. (currently amended) The transformed plant of claim 15, wherein the amino acid sequence of said aspartate ~~carboxylase-decarboxylase~~ has a ~~homology of~~ at least 90% sequence identity with SEQ ID NO: 2.

28. (currently amended) The transformed plant of claim 15, wherein the plant is selected from the group consisting of wheat, corn, peanut, cotton, oat, and soybean.

29. (currently amended) A plant cell, transformed with a nucleic acid sequence encoding an aspartate ~~carboxylase-decarboxylase~~, wherein the amino acid sequence of said aspartate decarboxylase has at least 80% sequence identity with SEQ ID NO: 2.

30. (currently amended) The transformed plant cell of claim 29, wherein said aspartate ~~carboxylase-decarboxylase~~ has the amino acid sequence of SEQ ID NO: 2.

31. (currently amended) The transformed plant cell of claim 30 wherein said aspartate ~~carboxylase-decarboxylase~~ is encoded by a nucleic acid ~~having the~~ sequence of SEQ ID NO: 1.

32. (currently amended) The transformed plant cell of claim 29, wherein said aspartate ~~carboxylase-decarboxylase~~ is encoded by a nucleic acid sequence ~~which has a sequence which is~~ having at least 70% ~~identical~~ identity to SEQ ID NO: 1.

33. (currently amended) The transformed plant cell of claim 29, wherein said aspartate carboxylase ~~decarboxylase~~ is encoded by a nucleic acid sequence ~~which has a sequence which is~~ having at least 90% ~~identical identity~~ to SEQ ID NO: 1.

34. (currently amended) The transformed plant cell of claim 29, wherein said aspartate carboxylase ~~decarboxylase~~ is encoded by a nucleic acid sequence which hybridizes under stringent conditions to the full-length complement of SEQ ID NO: 1, wherein said stringent conditions comprise washing in 5-times ~~.~~ x SSC at a temperature of ~~from~~ from 50 to 68 ~~-degree-~~ degrees C.

35. (cancelled) .